

REMARKS

This is a full and timely response to the outstanding non-final Office Action mailed October 13, 2009. Through this response, claims 24, 30-32, 34, and 41 have been amended and no new matter has been added. Reconsideration and allowance of the application and pending claims 1-3 and 5-47 are respectfully requested.

I. Claim Rejections - 35 U.S.C. § 103(a)

A. Statement of the Rejection

Claims 1-3 and 5-23 have been rejected under 35 U.S.C. 103(a) as allegedly unpatentable over U.S. Patent Application Publication No. 2002/0040475 to *Yap et al.* (herein, "*Yap*"). Applicants respectfully traverse this rejection.

B. Discussion of the Rejection

The U.S. Patent and Trademark Office ("USPTO") has the burden under section 103 to establish a *prima facie* case of obviousness according to the factual inquiries expressed in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966). The four factual inquiries, also expressed in MPEP 2100-116, are as follows:

- (A) Determining the scope and contents of the prior art;
- (B) Ascertaining the differences between the prior art and the claims in issue;
- (C) Resolving the level of ordinary skill in the pertinent art; and
- (D) Evaluating evidence of secondary considerations.

Applicants respectfully submit that a *prima facie* case of obviousness is not established using the art of record.

Independent Claim 1

Claim 1 recites (with emphasis added):

1. A system for managing the allocation and storage of media content instance files in a hard disk of a storage device coupled to a media client device in a subscriber television system, comprising:

- a memory for storing logic;
- a buffer space in the hard disk for buffering media content instances as buffered media content instance files; and

a processor configured with the logic to track the size of permanent media content instance files and the buffered media content instance files to provide a visual indication of an amount of available free space, such that the indication is independent of the buffer space.

Applicants respectfully submit that *Yap* fails to disclose, teach, or suggest at least the above-emphasized features. For instance, Applicants respectfully submit that the rejection fails to set forth a *prima facie* rejection since there is an omission of a necessary element from the rejection, namely, ***such that the indication is independent of the buffer space***. It is noted that similar features were specifically addressed in the rejection to claim 24, but under a different grounds and analysis. For at least this reason, Applicants respectfully request that a new rejection be presented that explicitly addresses the entirety of the claim features, or alternatively, withdrawn the rejection and allow claim 1.

In addition, the non-final Office Action (page 3) refers to Figures 21a-e, 22a-c, and 23a-c of *Yap* for alleged support of the above-emphasized features (less the indication independence from the free space features), and uses the buffer space of SDRAM 315 as the alleged equivalent to the claimed hard disk buffer space. However, if SDRAM is

intended as the alleged buffer space, it is noted that the cited Figures appear to be directed to the HDD 320, not SDRAM. For instance, paragraph [0352] of *Yap* appears to support at least some of these figures, and is reproduced below (emphasis added):

[0352] FIGS. 21(a) through 21(e) illustrate several exemplary graphical objects that may represent the Disk Gas Gauge status parameter of the invention. The Disk Gas Gauge status parameter generally indicates the percent of the HDD 320 that has been consumed by recorded material. Once selected, the Disk Gas Gauge may be displayed in various forms. In FIG. 21 (a), two icons (gauges 521 and 522) representing "percent used" and "percent unused" may be displayed on display device 370. These two icons may alternatively depict "recording time used" and "remaining recording time available" in lieu of percent used/unused.

Likewise, the corresponding description for Figures 22 and 23 (see, e.g., paragraphs [353-359] of *Yap*) also appears to focus on status parameters for the HDD 320. Assuming *arguendo* the gas gauge feature of *Yap* is intended as the equivalent of the **visual indication of an amount of available free space**, *Yap* does not support the claim features as a whole, since the gas gauge is intended for the HDD 320, not SDRAM. The non-final Office Action (page 3) alleges that *Yap* does not explicitly disclose that the buffer space is in the hard disk, and further alleges the following (page 3):

...However, the decision of whether to locate the SDRAM 315 with buffer space 316 inside or separate from the hard disk HDD 320 (e.g., FIGS. 6, 8-9) is a matter of design choice, one of which may be the choice and the advantage of integrating the SDRAM with the HDD to help improve the compactness and reliability of the design.

Applicants respectfully disagree. The inventor in *Yap* appeared to make a conscious decision (based on the extensive citations to the process utilizing both) in *Yap* to use both the HDD and SDRAM for downloading content, the latter (SDRAM) apparently serving to facilitate the control by host processor in routing content to the HDD

320 (see, e.g., paragraph [0176]). Although the substitution of an HDD with an SDRAM is disclosed (see, e.g., paragraph [0315]), there is no evidence presented that an SDRAM can somehow be embodied in or incorporated in an HDD (e.g., fundamentally different types of storage – non-volatile versus volatile, with fundamentally different access mechanisms), nor is there evidence that such alleged incorporation would serve the benefit that the inventor in *Yap* was intending to provide by the use of both types of memory/storage.

Further, Applicants respectfully note that *Yap* does indeed appear to disclose a buffering mechanism in the HDD 320 (though the extensiveness of the corresponding description from an enabling standpoint is questionable), and in particular, in the pause mechanism (for live broadcast). For instance, paragraph [0348] of *Yap* provides as follows (emphasis added):

[0348] FIGS. 19(a) through 19(c) illustrates several exemplary graphics that may represent the current delay status parameter of the invention. A viewer may select the Current Delay behind Live Feed cell 510 if the viewer has paused a live broadcast. This may be done by actuating a pause button on remote control 400, sending a signal to host processor 310 to direct the A/V data of the live feed being received by transport processor 330 to be buffered in SDRAM 315 via bus 305. During pause mode up to 30 minutes of a live broadcast may be buffered or cached (recorded) in SDRAM 315 and/or HDD 320, depending on the storage requirement. A freeze frame displaying the final frame processed may be shown in the pause mode. Further, the viewer may resume the live broadcast simply by pressing a button on the remote control 400 or STB 300 to resume live broadcast, in effect "jumping forward" to the current live broadcast.

However, even assuming *arguendo* that the *Yap* discloses buffer space in the HDD, *Yap* still fails to disclose, teach, or suggest at least the above-emphasized features. For instance, it is noteworthy that *Yap* also discloses in paragraph [0158] that the capacity appears to be distributed among the permanent recording space and the temporary space (pause function). Paragraph [0158] of *Yap* is reproduced below (emphasis added):

[0158] HDD 320 is actually a specific example of a mass storage device. In other words, the HDD 320 may be replaced with other mass storage devices as is generally known in the art, such as known magnetic and/or optical storage devices, (i.e., embodied as RAM, a recordable CD, a flash card, memory stick, etc.). In an exemplary configuration, HDD 320 may have a capacity of at least about 25 Gbytes, where preferably about at least 20 Gbytes is available for various recording applications, and the remainder flexibly allocated for pause applications in architecture 700.

It is also noteworthy that *Yap* discloses the apparent capability of carving out recording space from the pause application space, such as shown in paragraph [0203] reproduced below (emphasis added):

[0203] To convert from a paused to a recorded program, the apparatus 100 may move the paused program from a portion of the HDD 320 reserved for pausing to a portion reserved for recorded programs. Alternatively, the HDD 320 directory may be updated to reallocate space such that the paused program now resides in a virtual recorded program HDD 320 space. Such moves or HDD directory updates may be performed by the host processor 310.

Given the fact that the pause space allocation in the HDD 320 is “flexibly allocated,” and that recording space can arise from pause space, then it appears reasonable and predictable to expect that the capacity available shown in Figures 21, 22, and 23 may incorporate both the pause space and recording space, and hence it cannot be said that the gas gauge in *Yap* (assuming equivalent to the indication as claimed) is independent of the pause space. *Yap* is unclear as to exactly what constitutes the capacity for the HDD for purposes of Figures 21-23, though it is reasonable based on the above facts and explanation to assume that the entire capacity (pause and non-pause space) is contemplated for purposes of a visual indication. For at least these additional reasons, Applicants respectfully request that the rejection to claim 1 be withdrawn.

Because independent claim 1 is allowable over *Yap*, dependent claims 2-3 and 5-22 are allowable as a matter of law for at least the reason that the dependent claims 2-3 and 5-22 contain all elements of their respective base claim. See, e.g., *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988).

Applicants respectfully submit that one or more dependent claims are allowable on separate grounds. For instance, with regard to claim 11, the non-final Office Action (page 5) alleges that units of hard disk space (e.g., MB, GB, etc.) is shown by Figures 21a-b of *Yap*. However, Applicants respectfully disagree, and note that those figures and corresponding description do not disclose, teach, or suggest the features of claim 11, and hence respectfully request that the rejection be withdrawn.

As another example, claim 13 requires the following (emphasis added):

13. The system of claim 1, wherein the processor is further configured with the logic to ***buffer an analog signal received at a connector from a consumer electronics device, as a digitally compressed media content instance.***

The non-final Office Action (page 6) alleges these features are found at least in paragraph [0007] of *Yap*, reproduced below as follows:

[0007] A micro-controller controls the overall operation of the STB, including the selection of parameters, the set-up and control of components, channel selection, viewer access to different programming packages, blocking certain channels, and many other functions. The compression and decompression of packetized video signals may be accomplished according to the Motion Picture Expert Group (MPEG) standards and the compression and decompression of audio signals may be accomplished according to the Motion Picture Expert Group (MPEG) standards, DOLBY DIGITAL (or AC-3) standards, DTS or other known standards. The conventional STB also typically includes video and audio decoders in order to decompress the received compressed video and audio. The STB may output video and audio data to a number of destinations, including audio and video decoders, ports, memories, and interface devices, such as a digital VHS (DVHS) interface. The STB may send the same audio and video data to different destinations.

Applicants respectfully submit that nothing in this reproduced citation discloses, teaches, or suggests the above-emphasized features of claim 13, and hence respectfully request that the rejection be withdrawn.

As another example, claim 18 requires the following (emphasis added):

18. The system of claim 1, wherein the processor is further configured with the logic to **determine the available free space after subtracting buffer space capacity from total disk space.**

The non-final Office Action (page 7) alleges that the features of claim 18 may be found at least in Figure 21a of *Yap*. Applicants respectfully disagree, and respectfully submit that *Yap* fails to disclose the above-emphasized features of claim 18 in Figure 21a or elsewhere in *Yap*, and invite the Office to show how the above-emphasized features are taught in Figure 21a, or otherwise, withdraw the rejection and allow claim 18.

As another example, claim 22 requires the following:

22. The system of claim 1, wherein the **free space indication is unaffected by writes to and deletions from the buffer space.**

The non-final Office Action refers to Figures 8-9 and paragraphs [0176] and [0178] of *Yap* for alleged unpatentability. Figures 8-9 are system diagrams that offer no insight into the claim language, and paragraphs [0176] and [0178] are reproduced below:

[0176] As shown in FIG. 8, A/V data of a selected or desired event, program and/or broadcast from at least two tuners 40 is received by input port 325 (typically the data is received in packetized form) and fed to the transport processor 330. The transport processor 330 then transfers the received A/V data to SDRAM 315. Digital recording is accomplished by the host processor 310, which transfers the A/V data buffered by SDRAM 315 to the HDD 320. In other words, the SDRAM 315 serves as a buffer which buffers data sent by transport processor 330. This allows the host processor 310 to control the recording onto the HDD 320 when host processor 310 time is available. When a sufficient amount of programming data has been accumulated in the SDRAM 315, the host processor 310 transfers the data from the SDRAM 315 to the HDD 320 for recording therein.

[0178] Digital recording is accomplished similarly, with SDRAM 315 serving as a buffer that buffers data sent by the PCI I/F 340. This allows the host processor 310 to control the recording onto the HDD 320 when processor time is available. When a sufficient amount of A/V data has been accumulated in the SDRAM 315, the host processor 310 transfers the data from the SDRAM 315 to the HDD 320 for recording therein. To record data, the host processor 310 may also inform the PCI I/F 340 of available start addresses in the SDRAM buffer space 315 to which data may be buffered for eventual recording in HDD 320.

Applicants respectfully submit that neither of these paragraphs disclose, teach, or suggest at least the above-emphasized features of claim 22, and hence respectfully request that the rejection be withdrawn and claim 22 allowed.

Independent Claim 23

Claim 23 recites at least such features as *buffer space in the hard disk* and “wherein the processor is further configured with the logic to provide the user interface that provides a *numerical indication of an amount of available free space*, such that the *indication is unaffected by writes to and deletions from the buffer space*.” This latter feature is somewhat similar to the concept of an *indication* that *is independent of the buffer space*, as described in the context of claim 1. For at least the reasons provided in support of patentability of claim 1, Applicants respectfully request that the rejection be withdrawn and claim 23 allowed.

II. Claim Rejections - 35 U.S.C. § 102(e)

A. Statement of the Rejection

Claims 24-47 are rejected under 35 U.S.C. 102(e) as allegedly anticipated by U.S. Patent Application Publication No. 2002/0040475 to *Yap et al* (herein, "*Yap*"). Applicants respectfully traverse this rejection to the extent not rendered moot by amendment.

B. Discussion of the Rejection

It is axiomatic that "[a]nticipation requires the disclosure in a single prior art reference of each element of the claim under consideration." *W. L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1554, 220 USPQ 303, 313 (Fed. Cir. 1983). Therefore, every claimed feature of the claimed invention must be represented in the applied reference to constitute a proper rejection under 35 U.S.C. § 102(e).

In the present case, not every claimed feature is represented in the *Yap* reference.

Independent Claim 24

Claim 24 recites (with emphasis added):

24. A method for managing the allocation and storage of media content instance files in a hard disk of a storage device coupled to a media client device in a subscriber television system, comprising the steps of:

buffering media content instances into buffer space of the storage device as buffered media content instance files;

tracking the size of permanent media content instance files and buffered media content instance files; and

providing a visual indication of an amount of available free space of the storage device, such that the indication is independent of the buffer space.

Applicants respectfully submit that the rejection has been rendered moot. Applicants respectfully submit that *Yap* fails to disclose, teach, or suggest at least the above-emphasized features. Even assuming *arguendo* SDRAM as the buffer space and the HDD for which there is a visual indication (see, e.g., page 9 of the non-final Office Action), each are part of a separate storage device whereas claim 24 requires the presence of the buffer space and space corresponding to the indication of available free space to be in the same storage device. Further, though not addressed in the present rejection, even assuming *arguendo* the buffer space and non-buffer space are present in *Yap* on the same storage device (elaborated in a similar context above in the 103 rejection analysis), the visual indication of an amount (assuming shown in *Yap*) is not described in *Yap* as being independent of the buffer space, and hence the rejection of claim 24 should be withdrawn.

Because independent claim 24 is allowable over *Yap*, dependent claims 25-47 are allowable as a matter of law for at least the reason that the dependent claims 25-47 contain all elements of their respective base claim. See, e.g., *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988).

In addition, Applicants respectfully submit that one or more dependent claims are allowable on separate grounds. The non-final Office Action (pages 9-13) makes reference to rejections made under some claims of the 103 section for applicability or relevance to the rejection of similar-subject matter claims examined under the 102 section. Accordingly, for similar reasons supporting patentability of claims 11, 13, and 18, Applicants respectfully request that the rejection to claims 34, 36, and 41 be withdrawn.

Further, as to claim 47, Applicants respectfully submit that the rejection is legally deficient, since claim 47 relies upon a separate grounds of rejection (102) than claim 1 (103), and hence it cannot be properly alleged that claim 47 is anticipated when the claim from which it depends (claim 1) requires an obviousness determination. For at least this additional reason, Applicants respectfully request that the rejection of claim 47 be withdrawn.

Independent Claim 46

Claim 46 is allowable for at least the reason that *Yap* fails to disclose at least the features of “wherein the indication is ***unaffected by writes to and deletions from the buffer space***, wherein the buffer space, the available free space, and permanently recorded space are ***located on the hard disk***.” The rejection to claim 46 relies on the rationale presented to claim 24, yet claim 24 requires the presence of the buffer and non-buffer space on the hard disk whereas the rejection to claim 24 appears to assume an absence of such features. For at least this reason, Applicants respectfully request that the rejection be withdrawn and claim 46 allowed.

CONCLUSION

Applicants respectfully submit that Applicants' pending claims are in condition for allowance. Any other statements in the Office Action that are not explicitly addressed herein are not intended to be admitted. In addition, any and all findings of inherency are traversed as not having been shown to be necessarily present. Furthermore, any and all findings of well-known art and official notice, and similarly interpreted statements, should not be considered well known since the Office Action does not include specific factual findings predicated on sound technical and scientific reasoning to support such conclusions. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,

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